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Ancient Global Fabrics - Key Insights

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The beginning of clothing as cover for humans began after the Ice Age. The antiquity of fibres is 34000 years while the antiquity of finished clothing was discovered 5000 years ago, in an ancient Egyptian tomb in the form of a linen fabric, a Tarkhen dress belonging to the first Egyptian dynasty. Pants were found in a Chinese tomb (about 3000 BC); a sock made of silk was discovered during an archaeological expedition in the city of Antinoopolis in Egypt. The George Washington Museum of Textile depicts the preservation of a Peruvian dress dating back to 900 to 600 BCE (Before the Common Era); while the Brooklyn Museum of Art boasts of a 2000-year-old richly coloured fabric from the South coast of Peru, exemplifying the amazing durability of textile preservation in the Peruvian era.

Earlier people used vegetation and animal skins for covering their body as protection from heat, cold and rain as they migrated to new climates. The making of cloth was initiated by

EXPERT'S Column



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diverse tribes spanning the prevalent civilizations across continents. Clothing and textiles developed with the advent of different technologies adopted during different prospering civilizations. Felt or spun fibres were made into yarns which were knitted, looped and woven into fabric that could be made into clothing. In fact, clothing evolved in concurrence of social custom and culture. Much of the evidence of the earliest examples of clothing is available through archaeological findings of tools, stone carvings and fossils depicting diverse cultures.

This article attempts to explore and reveal the glory and identity of ancient textiles across the globe. The pre-historic quest for textile evolution is clearly visible in different civilization eras. The hunter-gatherers of the Australian Aborigines and North American Indians could weave baskets and fishing nets as well as cotton and wool for clothing. This is also true about the ancient Incan, Mayan and Aztec civilizations.

Preservation of Ancient fabrics

According to Carol James, weaver and author, 'Industries looking for rigidity and durability of textiles should explore... fitting their needs from ancient textile structures.'

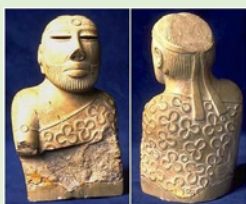
One example of the durability of ancient fabrics is linen. Obtained from the flax plant, which has been in use since the ancient Egyptian civilization, linen is still in use all over the world. Another ancient fabric which remains popular is silk, 'The Queen of Textiles'. The earliest silk fabric was found in a Chinese tomb dating back to 3650 BC E. The Chinese secretly guarded the method of silk production in the early millennia. Burma was also well-known for its silk weaving.

It's not the material that is important in the preservation of a fabric for a longer period. Organic materials degrade easily. Sumru Belger Krody, senior curator of George Washington University and the Museum of Textile, claims that ancient fabrics are better preserved under dry desert conditions or permafrost conditions wherein the fabrics are frozen. This would also explain why a 600-year-old corset found under the floorboards of a medieval Austrian castle was not preserved, unlike the ancient Peruvian fabric that stayed intact due to the dry sands prevailing in the South Peruvian coast.

Evolution Of Textiles Across Diverse Civilizations.

Indus Valley Civilization:

Archaeological findings in ancient India have revealed a few twisted cotton threads as a connecting cord for a bead necklace. In Mohenjo-Daro, a terracotta figurine, known as 'Priest King' is wearing a shawl with a flower pattern. The use of indigo plants for dyeing was quite prevalent in the Harappan civilization. Herodotus, a Greek historian in 5th century BCE has compared Indian cotton to the beauty and goodness of sheep wool. Alexander the Great, conquered India in 327 BCE and wore Indian clothes. Strabo, another Greek historian mentioned the beauty of Indian fabrics while Ariane spoke of Indo- Arab trade in the Middle-East in 130 BC.



A few specific examples of ancient statues donning clothes include besides the 'Priest King' at the National Museum of Pakistan; the Mauryan era, 'Didarganj Yakshi', the star attraction at the Patna



Museum; Buddha wearing Kasaya robes (200 BC) at the Tokyo Museum and Shakuntala wife of Dushyanta, wearing a saree in Kalidasa's Aryanjana Shakuntala as depicted in a painting by Raja Ravi Verma (1870).

Ancient Near East

The earliest known textiles are the flax fibres found at the Neolithic site in Anatolia dating back to 6000 B.C. But the breeding of sheep for wool fleece was done since 3000 B.C. In Mesopotamia, Sumerian men and women wore skirts known as 'kaunakes'. The length of the skirt was determined by status. The men had bare torsos while women were draped from shoulder to ankle. Over time, the craft of wool weaving developed and towards the 3rd millennium B.C. men started wearing long tunics upto their ankles with short or long sleeves, while the women wore clothing with different designs. Archaeological findings about clothing in these parts, include a bone hook belt worn by a statue from the Bronze age in Lake Urmia, Iran; Sumerian statues of male and female worshippers in 2800 to 2400 B.C. in Northern Iraq (early dynasty) and a female statuette in Abu, (early dynasty), Northern Iraq.

Ancient China

The earliest evidence of silk production - a Bombyx mori, silkworm cocoon - carbon dated to 5000 to 3000 B.C - was found on the sites of Yangshou province in Xia, China. Fragments of looms were also found on the sites of the Hemudu culture, in present day Yuyou Zhejiang, carbon dated to about 4000 B.C. Scraps of silk were seen on the sites at Lianghsu in Huzhou, dating back to



2700 B.C. Other fragments have been recovered from the Shang dynasty (1600 to 1046 B.C. In this era, the clothing consisted of a 'Yi', a narrow - cuffed tunic tied with a sash, and a narrow ankle-length skirt called shang, worn with a 'bixi' a length of



fabric that reached the knees. The elite class wore cloths with primary vivid colours. Quite a few rare statues explain the nature of fabrics adorning them.

Thailand

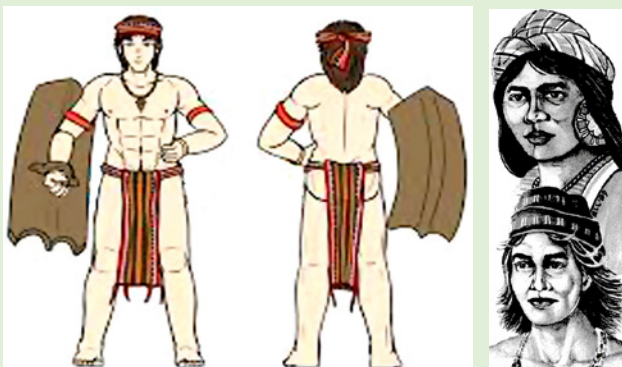
The earliest evidences of spinning were found in the archaeological sites located in Sa Kae in Central Thailand. They were inhabited from first millennium B.C. to first millennium AD. Archaeologists discovered 90 fragments of a spindle whorl from 3rd millennium B.C. to the end of 3rd millennium B.C.

Philippines

The basic Filipino garment was the 'bahag' a loin cloth worn by men and made either from bark cloth or hand woven cloth. The 'malong' was a hand woven, multi-functional piece of cloth that could be used as a skirt for men and women, a blanket, a sheet, a prayer mat, etc. Formal clothes like blouse, tunics, loose smocks with sleeves, capes and ankle-length robes were made of varied fabrics of value in ascending order viz., abaca, abaca with cotton, cotton, cotton decorated with silk thread, silk with imported print and elegant selective abaca fibres as thin as silk.

'Pandung' was a narrow lady's cloak, while the word 'kurong' referred to any short skirt or blouse. Clothes made of superior imported fabrics like chintz or calico were called by the name of the fabric itself. The usual male headdress was a turban called the 'pudong', but in Panay both men and women also wore a headcloth or a bandana called the 'saplung'.

The most prestigious kind of 'pudong' worn by warriors was made of 'pinayusan', fine abaca fibres selected for their whiteness, tie-dyed a deep scarlet in various patterns and burnished to a silver sheen. This 'pudung' was additionally lengthened with each act of bravery - real heroes



would let one end hang loose with affected carelessness. Women generally wore a kerchief or a 'tubatub', tied over the whole head; but they also wore broad-brimmed hats called 'sayap' or 'tarindak'.

Ancient Japan

The earliest evidence of silk weaving was found in the 'Jomon' period. This culture is defined by decorated pottery with cord patterns. Some cloth fragments of bark fibres were discovered in a shell mound, in Miyagi Prefecture, dating back to 5500 BC. Hemp fibres were also discovered in Fukui Prefecture dating back to the Jomon period indicating their use in clothing. Some pottery imprint designs during this period depict people wearing short upper garments, close fitting trousers, funnel-shaped sleeves and rope like belts. The clothing depicts fine embroidery or arch designs. There was no difference between male and female clothing. Since these are representations of pottery design depictions and may not reveal what the clothing actually looked like. Archaeological findings of bone needles prove that clothes were sewn.

Next was the Yayoi period which saw the advent of rice cultivation. This period witnessed a shift to the agrarian community from the earlier hunter-gatherer stage. This had an impact on clothing too as it evolved according to the needs of the user, folks. This has been well documented in early Chinese literature. For example, an unsewn cloth wrapped around a body, or a poncho-type garment with a cut head-hole in it. There is a common belief that the period of development of Yayoi was quite topan before Chinese influence saw a promotion of clothing according to age or gender.

From 500 to 350 is the Yamato period where clothing was derived from the artifacts of that time. The tomb statues especially tell us that their clothing style changed according to the Chinese accounts from the previous age. The statues wore two-piece outfit with the upper half with garments open in the front and close-sleeves and loose trousers, while women wore pleated skirt. The Chinese introduced cultivation of silk during this period, though silk clothes were only worn by people of a certain class or rank.

The following Asuka (550 to 700) and Nara (648 to 740) periods saw the clothing change

according to Chinese customs and laws and clothes became wider and longer. These new laws required people to wear clothing of different styles and colours to indicate their social status. Advanced sewing methods were introduced.

Egyptian Civilization

Evidence exists of the cultivation of domesticated wild flax in the Neolithic period c. 5500 BC. Other fibres like reed, rush, palm and papyrus were used either alone or in combination with linen for making ropes or textiles. Wool production was rare during this period. Linen bandages were used in the burial custom of mummification.



Spinning techniques included drop spinning, hand to hand spinning and rolling on the thigh, yarn was also spliced.

Men wore wrap around skirts which were belted at the waist. Higher class men wore pleated skirts and a triangular apron. The most common headdress was the 'khat', a striped cloth worn by men. The women mostly wore a simple sheath dress called a 'kalasiris'. The length of the dress denoted the social class of the wearer. Over the dress, the women could wear a shawl, cape or robe.



Classical Greece

Fabric in ancient Greece was woven on a warp-weighted loom. Depiction in the form of a terracotta vase exists in the Metropolitan Museum of Art, New York. The vase (550 to 530 BCE) depicts two women weaving on an upright loom. The warp threads which run vertically to the top of the bar, are held down by weights, which hold them taut. The woman on the right runs the shuttle containing the weaving thread across the middle of the warp. The woman on the left uses the thread to consolidate all the woven threads.

Ancient Greek clothing consisted of wearing a piece of unsewn length of fabric (wool or linen generally) pinned and draped around

the body and secured at the shoulders with ornamented pins called fibulae and belted with a sash. Typical garments were the 'peplos', a loose robe worn by women and the 'chiton', a tunic worn by both men and women. Men's 'chitons' hung to the knees while the women's 'chitons' fell to the ankles. The 'himation' was a simple outer garment worn over the 'peplos' or 'chiton'. The 'clamsys' was a cloak worn by men and considered to be typical military attire from the 5th to 3rd century BC.;



The toga of ancient Rome is also an unsewn cloth worn around by male citizens draped around the body in various fashions over a simple tunic. Early tunics were two simple rectangles tied over the shoulders and sides while latter day tunics had sewn sleeves. Women wore draped stola with an ankle length tunic and a shawl on the top. Wool was the preferred fabric while linen, hemp and some small amounts of imported silk and cotton waste were also worn.

Iron Age Europe

The iron age is broadly identified as stretching from 1200 BC to 550 AD and the beginning of the Medieval period. Bodies and clothing have been found preserved in the acidic peat bogs in North western Europe. The Danish recreation of clothing found on such bodies indicate woven wool dresses, tunics and skirts. These were unstitched and held together in place by belts with metal brooches and pins.



Garments were not always plain but decorated with colours, particularly at the ends and edges of the garments. Warmth came from woollen shawls, capes of animal skins with fur inside for added comfort. Caps were also made from animal skins. There is an emphasis on hair arrangements, from braids to elaborate Suebian knots. Soft laced leather shoes were woven for use as protection for feet.

(To be continued...)

(The views expressed in this column are of the author and not that of Cotton Association of India)

The Fundamentals are Fine but Shipping Issues Continue to Plague Cotton

What cotton farmers are producing and what textile professionals are spinning appear to be aligned fairly well, with production in the 2021/22 season is currently projected to be 26.11 million tonnes and consumption holding steady at 25.67 million tonnes. The fundamentals are fine.

The problem that today's cotton industry faces is getting the fibre to the spinners. Cotton has a lot of company in its struggle, as the Covid pandemic disrupted global shipping across many industries. But the cotton supply chain is longer and more complex than it is for most other commodities, especially since so much of the production in the West has to be shipped halfway around the world to the countries where it's transformed into textiles.

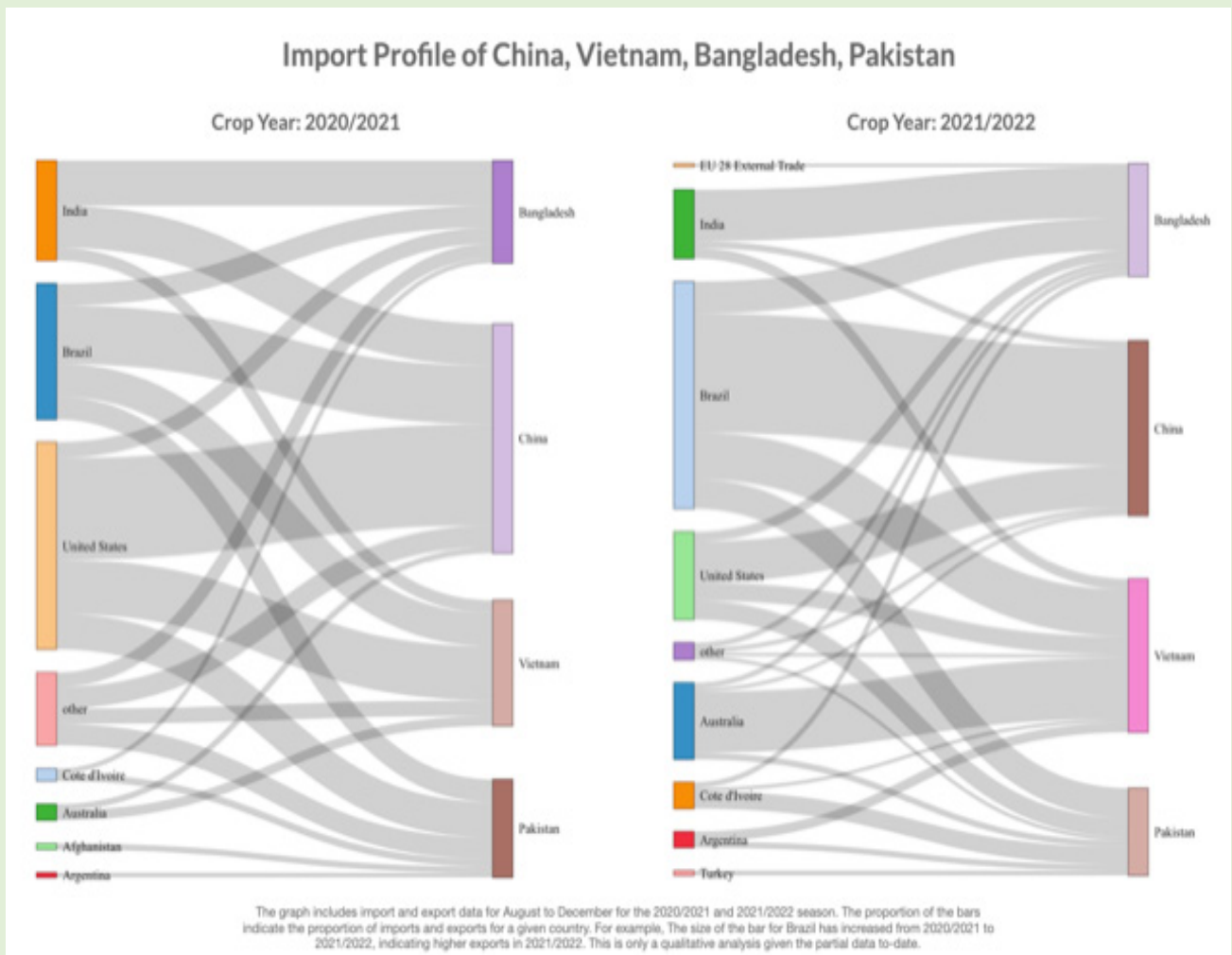
Those challenges are forcing countries to adapt by streamlining their supply chains. China,

Vietnam and Pakistan imported large amounts of cotton from the United States in 2020/21. The graph below shows how the import profile has shifted away from the United States with large increases in imports from Brazil and Australia.

Given Australia's geographic proximity to East and South Asia, this provides a distinct advantage to Australia when shipping ocean freight to Bangladesh, Pakistan and Vietnam. Australia is clearly capitalising on their increased production capacity and impressive yields, especially in the 2021/22 season.

The Secretariat's current price forecast of the season-average A index for 2021/22 ranges from 101 cents to 120 cents, with a midpoint at 109 cents per pound.

Source: ICAC Cotton This Month, 01 March, 2022



COTTON ASSOCIATION OF INDIA



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Established in 1952
ISO 9001:2015

**A CHILD'S CHILDHOOD IS FOR LEARNING
DON'T USE THEIR CHILDHOOD FOR EARNING
SAY NO TO CHILD LABOUR**

Supply and Distribution of Cotton

01 March 2022

Seasons begin on August 1	Million Metric Tons					
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
BEGINNING STOCKS						
WORLD TOTAL	20.53	18.88	19.43	19.34	22.26	20.36
China	12.65	10.35	9.03	8.88	9.02	9.30
USA	0.83	0.60	0.82	0.83	1.23	0.26
PRODUCTION						
WORLD TOTAL	23.38	27.00	25.98	26.13	24.32	26.11
India	5.86	6.35	5.66	6.20	6.02	5.83
China	4.90	5.89	6.04	5.80	5.91	5.73
USA	3.74	4.56	4.00	4.34	3.18	3.84
Brazil	1.53	2.01	2.78	3.00	2.36	2.71
Pakistan	1.66	1.80	1.67	1.32	0.89	0.98
Uzbekistan	0.96	0.96	0.64	0.53	1.03	0.94
Others	4.72	5.44	5.20	4.94	4.93	6.08
CONSUMPTION						
WORLD TOTAL	24.90	26.35	26.01	22.69	25.66	25.68
China	8.28	8.50	8.25	7.23	8.40	8.20
India	5.15	5.42	5.40	4.45	5.70	5.53
Pakistan	2.22	2.35	2.36	1.98	2.15	2.15
Europe & Turkey	1.66	1.73	1.82	1.60	1.70	1.74
Bangladesh	1.41	1.66	1.58	1.50	1.64	1.73
Vietnam	1.17	1.51	1.51	1.45	1.52	1.68
Brazil	0.69	0.68	0.73	0.57	0.69	0.70
USA	0.71	0.70	0.63	0.47	0.52	0.56
Others	3.62	3.80	3.73	3.44	3.35	3.40
EXPORTS						
WORLD TOTAL	8.29	9.14	9.28	9.20	10.60	9.96
USA	3.33	3.64	3.37	3.47	3.63	2.96
Brazil	0.61	0.91	1.31	1.95	2.40	2.10
CFA Zone	1.00	1.06	1.16	1.07	1.18	1.36
India	0.99	1.13	0.76	0.70	1.33	0.94
Australia	0.81	0.85	0.79	0.30	0.34	0.81
Uzbekistan	0.38	0.22	0.16	0.10	0.01	0.01
IMPORTS						
WORLD TOTAL	8.09	9.04	9.22	8.68	10.05	9.96
China	1.10	1.32	2.10	1.60	2.80	2.20
Vietnam	1.20	1.52	1.51	1.41	1.55	1.70
Bangladesh	1.41	1.67	1.54	1.50	1.69	1.69
Turkey	0.84	0.96	0.79	1.02	1.16	1.17
Indonesia	0.74	0.77	0.66	0.55	0.50	0.54
TRADE IMBALANCE †	-0.20	-0.10	-0.06	-0.52	-0.55	0.00
STOCKS ADJUSTMENT ‡	0.07	0.00	0.00	-0.01	0.00	0.00
ENDING STOCKS						
WORLD TOTAL	18.88	19.43	19.34	22.26	20.36	20.81
China	10.35	9.03	8.88	9.02	9.30	9.00
USA	0.60	0.82	0.83	1.23	0.26	0.59
ENDING STOCKS/MILL USE (%)						
WORLD-LESS-CHINA *	51.31	58.29	58.86	85.58	64.07	67.52
CHINA **	125.03	106.27	107.69	124.82	110.77	109.81
COTLOOK A INDEX***	82.77	87.98	84.35	71.33	84.96	

† The inclusion of linters and waste, changes in weight during transit, differences in reporting periods and measurement error account for differences between world imports and exports.

‡ Difference between calculated stocks and actual; amounts for forward seasons are anticipated.

* World-less-China's ending stocks divided by World-less-China's mill use, multiplied by 100.

** China's ending stocks divided by China's mill use, multiplied by 100.

*** U.S. Cents per pound. Average price for a given season, August 1 to July 31 or average-to-date.

Source : ICAC Cotton This Month, March 01, 2022

UPCOUNTRY SPOT RATES													
Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)]								Spot Rate (Upcountry) 2020-21 Crop March 2022					
Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Gravimetric Trash	Strength /GPT	7th	8th	9th	10th	11th	12th
1	P/H/R	ICS-101	Fine	Below 22mm	5.0 – 7.0	4%	15	15185 (54000)	15297 (54400)	15297 (54400)	15353 (54600)	15353 (54600)	15213 (54100)
2	P/H/R (SG)	ICS-201	Fine	Below 22mm	5.0 – 7.0	4.5%	15	15325 (54500)	15438 (54900)	15438 (54900)	15494 (55100)	15494 (55100)	15353 (54600)
3	GUJ	ICS-102	Fine	22mm	4.0 – 6.0	13%	20	10629 (37800)	10714 (38100)	10798 (38400)	10854 (38600)	10967 (39000)	11248 (40000)
4	KAR	ICS-103	Fine	23mm	4.0 – 5.5	4.5%	21	-	-	-	-	-	-
5	M/M (P)	ICS-104	Fine	23mm	4.5 – 7.0	4%	22	18559 (66000)	18643 (66300)	18700 (66500)	18840 (67000)	18925 (67300)	19065 (67800)
6	P/H/R(U) (SG)	ICS-202	Fine	27mm	3.5 – 4.9	4.5%	26	20443 (72700)	20556 (73100)	20612 (73300)	20696 (73600)	20781 (73900)	20921 (74400)
7	M/M(P)/SA/TL	ICS-105	Fine	26mm	3.0 – 3.4	4%	25	18503 (65800)	18587 (66100)	18587 (66100)	18700 (66500)	18784 (66800)	18868 (67100)
8	P/H/R(U)	ICS-105	Fine	27mm	3.5 – 4.9	4%	26	20612 (73300)	20724 (73700)	20781 (73900)	20865 (74200)	20949 (74500)	21090 (75000)
9	M/M(P)/SA/TL/G	ICS-105	Fine	27mm	3.0 – 3.4	4%	25	19065 (67800)	19122 (68000)	19122 (68000)	19234 (68400)	19346 (68800)	19431 (69100)
10	M/M(P)/SA/TL	ICS-105	Fine	27mm	3.5 – 4.9	3.5%	26	19768 (70300)	19825 (70500)	19825 (70500)	19937 (70900)	20021 (71200)	20134 (71600)
11	P/H/R(U)	ICS-105	Fine	28mm	3.5 – 4.9	4%	27	21174 (75300)	21287 (75700)	21343 (75900)	21427 (76200)	21512 (76500)	21652 (77000)
12	M/M(P)	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	21287 (75700)	21399 (76100)	21455 (76300)	21540 (76600)	21596 (76800)	21709 (77200)
13	SA/TL/K	ICS-105	Fine	28mm	3.7 – 4.5	3.5%	27	21343 (75900)	21455 (76300)	21512 (76500)	21596 (76800)	21652 (77000)	21765 (77400)
14	GUJ	ICS-105	Fine	28mm	3.7 – 4.5	3%	27	21343 (75900)	21427 (76200)	21427 (76200)	21512 (76500)	21568 (76700)	21680 (77100)
15	R(L)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	20528 (73000)	20584 (73200)	20584 (73200)	20640 (73400)	20668 (73500)	20809 (74000)
16	M/M(P)	ICS-105	Fine	29mm	3.7 – 4.5	3.5%	28	21793 (77500)	21877 (77800)	21877 (77800)	21962 (78100)	22018 (78300)	22158 (78800)
17	SA/TL/K	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	21849 (77700)	21934 (78000)	21934 (78000)	22018 (78300)	22074 (78500)	22215 (79000)
18	GUJ	ICS-105	Fine	29mm	3.7 – 4.5	3%	28	21652 (77000)	21709 (77200)	21709 (77200)	21793 (77500)	21849 (77700)	21962 (78100)
19	M/M(P)	ICS-105	Fine	30mm	3.7 – 4.5	3.5%	29	22524 (80100)	22580 (80300)	22580 (80300)	22637 (80500)	22665 (80600)	22777 (81000)
20	SA/TL/K/O	ICS-105	Fine	30mm	3.7 – 4.5	3%	29	22665 (80600)	22721 (80800)	22721 (80800)	22777 (81000)	22805 (81100)	22918 (81500)
21	M/M(P)	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	22890 (81400)	22918 (81500)	22918 (81500)	22946 (81600)	22974 (81700)	23058 (82000)
22	SA/TL/K/TN/O	ICS-105	Fine	31mm	3.7 – 4.5	3%	30	22974 (81700)	23002 (81800)	23002 (81800)	23030 (81900)	23058 (82000)	23143 (82300)
23	SA/TL/K/TN/O	ICS-106	Fine	32mm	3.5 – 4.2	3%	31	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)
24	M/M(P)	ICS-107	Fine	34mm	2.8 - 3.7	4%	33	26433 (94000)	26433 (94000)	26433 (94000)	26714 (95000)	26714 (95000)	26855 (95500)
25	K/TN	ICS-107	Fine	34mm	2.8 - 3.7	3.5%	34	28401 (101000)	28401 (101000)	28401 (101000)	28401 (101000)	28401 (101000)	28542 (101500)
26	M/M(P)	ICS-107	Fine	35mm	2.8 - 3.7	4%	35	27839 (99000)	27839 (99000)	27839 (99000)	28120 (100000)	28120 (100000)	28261 (100500)
27	K/TN	ICS-107	Fine	35mm	2.8 - 3.7	3.5%	35	29526 (105000)	29526 (105000)	29526 (105000)	29526 (105000)	29526 (105000)	29666 (105500)

(Note: Figures in bracket indicate prices in Rs./Candy)